**Density Exercises**

Density is found by taking the mass and dividing by the volume.

**Density = Mass**

**Volume**

Common units for density are **g/mL or g/cm3**.

This same equation can be solved to find the mass if both density and volume are known.

**Mass = Density x Volume**

The common unit for mass is **g**.

This same equation can be solved to find volume if both density and mass are known.

**Volume = Mass**

**Density**

Common units for volume are **mL** for liquids and irregular solids and **cm3** for regular solids.

*Perform the following calculations, showing work, the correct answer, and proper units.*

1. What is the density of a wood block with a mass of 450 g and a volume of 75 cm3?

2. What is the density of a liquid that has a mass of 740 g and a volume of 50 mL?

3. What is the density of a egg with a mass of 480 g? When placed into a beaker with 300 mL of water the water level rises to 380 mL.

4. What is the density of a wood block if the mass is 250 g and the sides of the block measure

20 cm x 15 cm x 10 cm?

5. What is the mass of a piece of copper, if copper has a density of 8.9 g/cm3 and a volume of 672 cm3?

6. What is the volume of water in a beaker if the mass of the water is 670 g and the density of water is 1.1 g/mL?

7) What is the density of an object with a mass of 5 g and when placed in a graduated cylinder with 20 mL of water, raises the water level to 85 mL?

8) What is the mass of an object with a volume of 5 mL and a density of 4 g/mL?